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STAAS & HALSEY LLP				GOKHALE, SAMEER K
SUITE 700				
1201 NEW YORK AVENUE, N.W.				
WASHINGTON, DC 20005				
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				2629

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/748,686	FITZMAURICE ET AL.	
	Examiner	Art Unit	
	Sameer K. Gokhale	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 24 June 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-25 and 27-30 is/are rejected.
7) Claim(s) 26 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. ____ .
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application
6) Other: ____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8 and 15-19, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 8, the phrase "wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control" on lines 1-2 of the claim, renders the claim indefinite because it is not clear what point the control is to be positioned at given the phrasing of the claim.

Regarding claims 15-18, claim 15 recites the limitation " the minimize control" in line 5, and "the undo control" in line 7. There is insufficient antecedent basis for these limitations in the claim.

Regarding claim 19, the phrase "positioned along the curve at least a radius of a menu of the control" on lines 22-23, renders the claim indefinite because it is not clear what point the control is to be positioned at given the phrasing of the claim.

In light of the above rejections under 35 U.S.C. 112, the following rejections are based on the claims as best understood by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ono (US 5,559,944).

Regarding claim 1, Ono teaches an interface, comprising: an interface area located responsive to a natural motion by a user (Fig. 6 and 7, see col. 3, lines 16-24, where the interface area is the menu and it is accessible via the natural arc movement of the user) and, comprising: a graphic defining the interface area (Fig. 6); and controls located in the interface area and accessible via the natural motion (Fig. 6).

Regarding claim 2, Ono teaches an interface wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted (Fig. 6 and 7, where the motion created inherently involves the movement of the user's elbow).

Regarding claim 3, Ono teaches an interface wherein a location responsive to the natural motion of the user hand is defined by the natural motion passing through a substantial center area of a display area (Fig. 6).

Regarding claim 4, Ono teaches an interface wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted and one of a wrist of the user is rotated and fingers of the user are moved (Fig. 6 and 7, and see col. 3, lines 16-24, where the motion created inherently involves the movement of the user's elbow and where since the entire hand is shown moving in Fig. 7 it means that the wrist and the fingers are moving along the arc as well).

Regarding claim 6, Ono teaches an interface wherein the graphic is a shape corresponding to an arc shaped curve and the controls are positioned in accordance with the curve (Figs. 6 and 7).

Regarding claim 7, Ono teaches an interface wherein a radius of the arc shaped curve is at least a radius of a menu of one of the controls (Fig 6, where the radius of a menu of one of the controls, which is the arc-shaped menu shown, is also the radius of the arc shaped curve corresponding to that same menu).

Regarding claim 8, Ono teaches an interface wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control (Fig. 6, where a radius of a menu of the control is the radius of the menu shown, and it is the same as the radius of any control positioned along the curve, including the control closest to the display area).

Regarding claim 9, Ono teaches an interface wherein a menu associated with one of the controls (Fig. 6, which is the arc-shaped menu shown) has a layout responsive to the curve (Fig. 6 shows that the menu is responsive to the curve).

5. Claims 1, 5, 11, 12, 14, 20-25, and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Keely, Jr. et al. (US 6,337,698) (hereafter, "Keely").

Regarding claim 1, Keely teaches an interface, comprising: an interface area (Fig. 10) located responsive to a natural motion by a user (Fig. 11 shows that the interface area is responsive to a natural motion of a user moving his hand naturally) and, comprising: a graphic defining the interface area (Fig. 10); and controls (Fig. 10, controls 132-140) located in the interface area and accessible via the natural motion (Fig. 11 shows the controls accessible via a natural motion).

Regarding claim 5, Keely teaches an interface wherein an interface location responsive to the natural motion of the user is a lower corner of a display area (see col. 7, lines 10-12, where the location can be in the lower corner).

Regarding claim 11, Keely teaches an interface wherein the interface is located in a lower left corner of a display area (see col. 7, lines 10-12, where the location can be in the lower corner) and the controls of the interface are arranged as one of a convex arc across the corner, a concave arc across the corner, a line across the corner, an

array in the corner, a convex corner across the corner, a convex arc with a linear portion across the corner, a sectioned pie in the corner, a sectioned pie in the corner and extending across the display area, and a rotatable circle intersecting both sides of the corner (Figs. 10-12 shows that when placed in the lower left corner, Keely's menu is a concave arc across the corner, or if it's a left handed user, and its placed in the lower left corner it will form a convex arc across the corner).

Regarding claim 12, Keely teaches a graphical user interface, comprising: an interface having an interface arc shape (Figs. 10-12, the interface is in an arc shape), located in corner of a display area (see col. 7, lines 10-12), having graphics for controls arranged along the interface arc (Figs. 10 – 12, where the bubble shapes shown are graphics) and having control hit zones each with a zone shape responsive to an approach arc defined by a dominant motion arc of a motion of a user (Fig. 10, line 142, see col. 6, lines 39-40, where a motion arc of a user is shown for selecting one of the menu items) with the graphics of the controls being located responsive to one-shot function or menu pop-up function with a pop-up menu radius (see col. 6, lines 39-40, where selection of the menu item by making a stroke constitutes a one-shot function).

Regarding claim 14, Keely teaches an interface wherein the zones have non-coincident, dominant arc approach paths (Fig. 10, where any arc taken to each of the menu items will have a non-coincident path the arc taken to any of the other menu items).

Regarding claims 20 and 27, Keely teaches a method and a computer readable storage for controlling a computer comprising: mapping controls of an graphical user interface in an arc shape (Figs. 10-12) at a location responsive to an approach arc (Fig. 10, line 142, see col. 6, lines 39-40, where a motion arc of a user is shown for selecting one of the menu items) and with a radius responsive to an underlying menu (Figs. 10-12, the radius of the user's approaching stroke is the radius of the menu) activatable via one of the controls (Figs. 10-12, where the menu is activated by using the controls); and allowing a user to activate the controls (see col. 6, lines 39-40).

Regarding claim 21, Keely teaches a method wherein the location comprises a display area corner (see col. 7, lines 10-12, where the location can be in the lower corner).

Regarding claim 22, Keely teaches a method wherein the corner is lower right corner for a left-handed person and a lower left corner for a right-handed person (Figs. 10-12, see col. 6, lines 45-54 and col. 7, lines 7-12, where it is clear that the menu goes in the lower right corner for a left-handed person and the lower left corner for a right-handed person).

Regarding claim 23, Keely teaches a method wherein the mapping maps controls on the arc responsive to a function of the controls (Fig. 10, the controls are mapped onto the arc-shaped menu according to their function).

Regarding claim 24, Keely teaches a method further comprising minimizing the interface responsive to activation of a minimize control (see col. 7, lines 51-57, where the pen leaving the surface activates the palette to be toggled off the screen, which is a form of minimizing it).

Regarding claim 25, Keely further teaches displaying a menu upon a touch input (see col. 6, lines 54-55) and allowing a user to select an item of the menu (Fig. 10, shows the path a user takes to select an item); displaying a menu and performing an interaction upon a dwell input (col. 7, lines 50-57, where the pen leaving the surface can minimize the menu therefore allowing the pen to dwell on the surface allows the user to interactively maintain the display of the menu); and performing a function upon a stroke input (col. 7, lines 27-30, where the user makes a selection via a stroke input).

Regarding claim 28, Keely teaches an apparatus, comprising: a display (Fig. 11 shows a display); and a processor (col. 3, line 50, where a computer has a processor) positioning a graphical user interface of multiple controls in a lower right corner of the display area (see col. 7, lines 10-12, where the processor is inherently involved in positioning the menu in the corner), the interface having an interface arc shape (Fig. 10)

and positioning the controls on the interface arc at positions responsive to a natural motion arc of a user when moving a hand from a center of the display toward the corner (Fig. 10, line 142, see col. 6, lines 39-40, where there is a motion made from the center of the menu, which is towards the center of the display when the menu is in the corner, toward the corner).

Regarding claim 29, Keely teaches an apparatus wherein the processor positions the controls responsive to a function of the controls (Fig. 10, where the controls are displayed according to their function, that being of displaying a certain color, and their positioning is inherently performed by the processor).

Regarding claim 30, Keely teaches an apparatus further comprising a stylus-based input system coupled to the processor and the display (col. 3, lines 49-50), and activating the controls responsive to a tap of a stylus on one of the controls (see col. 6, lines 54-55), a dwell of the stylus over one of the control input (col. 7, lines 50-57, where the pen leaving the surface can minimize the menu therefore allowing the pen to dwell on the surface allows the user to interactively maintain the display of the menu) and a stroke of the stylus on one of the controls (col. 7, lines 27-30, where the user makes a selection via a stroke input).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keely in view of Kurtenbach (US 5,689,667).

Regarding claim 10, Keely teaches the limitations of claim 1 as discussed above, however it does not explicitly teach a marking menu associated with one of the controls having a layout where a downward stroke brings up additional tool palettes and/or dialogs.

However Kurtenbach does teach a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs (see col. 3, lines 35-60, where a user can bring up a new sub-menu, which constitutes a dialog, by making a stroke towards a menu item but not lifting up the pen).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Kurtenbach in the device of Keely to have a commonly known method of bringing up a pop-up menu with a single stroke (see Keely col. 6, lines 29-31, which already recognizes and incorporates the common teachings of Kurtenbach).

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keely.

Regarding claim 13, Keely teaches the limitations of claim 12 as discussed above, however it does not teach a zone shape comprises one of a wedge, a curved sided triangle and a curved sided trapezoid. However, it would have been an obvious design choice for Keely to use one of a wedge, a curved sided triangle and a curved sided trapezoid as the shape for its menu items absent a showing of criticality from Applicant on the need for using these shapes for the claimed function.

9. Claims 15 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keely in view of Anderson et al. (US 5,828,360) (hereafter, "Anderson") and further in view of Kurtenbach.

Regarding claim 15, Keely teaches a graphical user interface for a digitizer based drawing application, comprising: a semicircular graphic (Figs 10-12, the graphic shown is semicircular) located in a corner of a display area of the drawing based application (see col. 7, lines 10-12) ; and controls located essentially in an arc in the graphic (Figs. 10-12, the controls are in an arc), said controls comprising: a color control for selecting paint color applied by a drawing tool of the application (Figs. 10-12).

However, it does not teach different categories of menu items in an arc-shaped menu and having a tool control located adjacent to a minimize control that provides a menu for selecting a drawing tool, and the color control located adjacent the undo control.

However, Anderson teaches different categories of menu items in an arc-shaped menu (Fig. 3) and a menu including a tool control that provides a menu for selecting a drawing tool (Fig. 3, item 31c, see col. 5 lines 13-28) where the menu item 31c provides the sub-menu shown in the figure with the different drawing tools), a minimize control (Fig. 3, where the 'miniview' control is a type of minimize control), and an undo control (Fig. 3 shows an undo control included in the menu).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Anderson in the menu of Keely in order to have different types of menu items in an arc-shaped menu in order to add the extra functions provided by the menu items and so that these menu items would be easily accessible to hand movements that a user can make and remember easily (see Anderson col. 2, lines 1-3).

However, Anderson does not teach the tool control adjacent to the minimize control and the color control located adjacent to the undo control. However, at the time of the invention it would have been obvious to a person of ordinary skill in the art to relocate the menu items as described in the claim since such a modification would have only involved a mere change in the location of the menu items. Applicants have not disclosed that the particular positioning of the menu items solves any stated problem, provides any advantage, or used for any particular purpose. Further, a change in location is generally recognized as being within the level of ordinary skill in the art, see In re Japiske, 86 USPQ 70 (CCPA 1950). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the invention of Keely in view of Anderson to obtain the invention as specified in the above claim.

Regarding claim 16, Keely in view of Anderson teaches the limitation of claim 15 as discussed above, and Anderson further teaches an interface with a minimize control, an edit control providing an undo function (Fig. 3 shows an undo control included in the menu), and Keely further teaches a page/file control providing a page change function for drawing pages of the application (see col. 8, lines 46-51) and a tool type control and providing a menu for selection a tool type of the application (Fig. 8, 74, see col. 5, lines 53-54, where the select tool is a “tool type” control because it provides options for selecting tool types such as cut, copy, and paste). However, it does not teach the relative locations of each control as discussed in the claim. However, according to the reasoning discussed above in regards to claim 15, the location of each tool relative to each other in a menu is an obvious design choice absent a showing of criticality by the Applicant.

Regarding claim 17, Keely further teaches an interface wherein the graphic comprises a semicircular band (Fig. 10).

Regarding claim 18, Keely in view of Anderson teaches the limitations of claim 15 as discussed above, however it does not explicitly teach an interface wherein pop-up

menus pop-up in association with the selected control and at a distance from side and bottom edges of the graphic to allow all menu commands to be displayed.

However, Kurtenbach does teach an interface wherein pop-up menus pop-up in association with the selected control and at a distance from side and bottom edges of the graphic to allow all menu commands to be displayed (Fig. 13, see col. 8, lines 1-11, where the pop-up allows all menu commands to be displayed).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the pop-up menu icons of Kurtenbach in the interface of Keely in view of Anderson in order to be able to expand a small unreadable menu from a selection of such small menus into readable form.

Regarding claim 19, Keely teaches a graphical user interface for a tablet personal computer based drawing application using a stylus, comprising: a semicircular graphic (Figs. 10-12) located in a corner of a display area of the drawing based application (see col. 7, lines 10-12) responsive to a natural motion by a user wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted (Fig. 10, line 142, see col. 6, lines 39-40, where a natural motion of a user is shown for selecting one of the menu items, and such a motion inherently involves the pivoting of the user's elbow); and controls located essentially in an arc in the graphic and activated by the stylus (Figs. 10-12, the controls are formed in an arc), said controls comprising: a color providing a menu for selecting paint color applied by a tool of the application (Figs. 10-12); a page control providing a page

change function for drawing pages of the application (see col. 8, lines 46-51); a tool type control and providing a menu for selection a tool type of the application (Fig. 8, 74, see col. 5, lines 53-54, where the select tool is a “tool type” control because it provides options for selecting tool types such as cut, copy, and paste); wherein a radius of the arc shaped curve is at least a radius of a menu of one of the controls (Figs. 10-12, where the radius of the arc shaped curve is the radius of one of the menu choices), wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control (Figs. 10-12, where any of the controls along the curve, including the one closest to the display has at least the radius of the whole menu).

However, Keely does not teach different categories of menu items in an arc-shaped menu and controls comprising: a minimize control located on a side edge of the graphic and providing a minimize function for the interface; a page control located adjacent a bottom edge of the graphic and proving a page change function for drawing pages of the application; an undo control located adjacent to the page control and providing an undo function for the application; a tool control located adjacent the minimize control and providing a menu for selecting a tool of the application; a color control located adjacent the undo control and providing a menu for selecting paint color applied by a tool of the application; and a tool type control located between the tool control and the color control and providing a menu for selection a tool type of the application; and wherein a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs.

However, Anderson teaches different categories of menu items in an arc-shaped menu (Fig. 3) and a menu including a tool control that provides a menu for selecting a drawing tool (Fig. 3, item 31c, see col. 5 lines 13-28) where the menu item 31c provides the sub-menu shown in the figure with the different drawing tools), a minimize control (Fig. 3, where the 'miniview' control is a type of minimize control), and an undo control (Fig. 3 shows an undo control included in the menu).

However, Anderson does not teach a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs.

However, Kurtenbach does teach a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs (see col. 3, lines 35-60, where a user can bring up a new sub-menu, which constitutes a dialog, by making a stroke towards a menu item but not lifting up the pen).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Anderson and Kurtenbach in the menu of Keely in order to have different types of menu items in an arc-shaped menu so that these menu items would be easily accessible to hand movements that a user can make and remember easily (see Anderson col. 2, lines 1-3) and to have a commonly known method of bringing up a pop-up menu with a single stroke.

However, Anderson nor Kurtenbach teach the location of the tools relative to each other. However, at the time of the invention it would have been obvious to a person of ordinary skill in the art to relocate the menu items as described in the claim

since such a modification would have only involved a mere change in the location of the menu items. Applicants have not disclosed that the particular positioning of the menu items solves any stated problem, provides any advantage, or used for any particular purpose. Further, a change in location is generally recognized as being with the level of ordinary skill in the art , see In re Japiske, 86 USPQ 70 (CCPA 1950). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Keely in view of Anderson and in further view of Kurtenbach to obtain the invention as specified in the above claim.

Allowable Subject Matter

10. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

Relative to independent claim 26, the major difference between the prior art of record (Keekly, Ono, Anderson, and Kurtenbach) and the instant invention, is that said prior art does not teach a method wherein if a user is inking from a drawing canvas and the inking crosses into the menu, inking still occurs on the canvas.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iwema et al. (US 7,058,902) teaches a pop-up menu in an arc shape. Driskell (US 6,883,143) teaches a menu shaped in an arc. Easty (US 6,448,987) teaches a menu shaped in a circle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer K. Gokhale whose telephone number is (571) 272-5553. The examiner can normally be reached on M-F 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SKG
September 15, 2006

Sameer Gokhale
Examiner
Art Unit 2629

AMR A. AWAD
SUPERVISORY PATENT EXAMINER
Amr Awad